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IN THE CLAIMS

1. (Currently Amended) An electron-emitting device comprising:

(A) ~~an extraction electrode and a negative electrode formed in opposition to each other with a gap between said extraction electrode and said negative electrode on an electrically insulating substrate~~ first and second electrodes disposed on an electrically-insulating substrate, wherein a gap is formed between said first and second electrodes;

(B) a first layer formed on said ~~negative~~ first electrode and having an oxide of Ti, an oxide of Zr, or an oxide of Nb on a surface thereof; and

(C) a fibrous carbon grown through a catalyst particle disposed on a ~~side wall~~ sidewall surface of said first layer ~~on the extraction~~ facing a side of said second electrode side.

2. (Currently Amended) The electron-emitting device according to Claim 1, wherein only the ~~side wall~~ sidewall surface of said first layer ~~on the extraction electrode~~ facing the side of said second electrode side is exposed and ~~the other surfaces thereof of said first layer~~ are covered with a material on which a fibrous carbon does not grow as compared with said first layer.

3. (Currently Amended) The electron-emitting device according to Claim 2, wherein said material on which a fibrous carbon does not grow as compared with said first layer, is at least ~~either~~ one of Ta, Cr, Au, Ag, Pt, and materials of ~~the~~ a same kind as a material making said catalyst particle.

4. (Original) The electron-emitting device according to Claim 1, wherein said fibrous carbon consists of a graphite nanofiber, a carbon nanotube, an amorphous carbon, or a mixture thereof.

5. (Original) The electron-emitting device according to Claim 1, wherein said fibrous carbon comprises a graphen.

6. (Original) The electron-emitting device according to Claim 1, wherein said fibrous carbon comprises a plurality of graphens.

7. (Original) The electron-emitting device according to Claim 6, wherein said plurality of graphens are layered in an axis direction of said fibrous carbon.

8. (Original) The electron-emitting device according to Claim 1, wherein said catalyst particle consists of Pd, Ni, Fe, Co, or an alloy thereof.

9. (Currently Amended) The electron-emitting device according to Claim 1, wherein an electron emission position from said fibrous carbon is more distant from a surface of said electrically-insulating substrate than a position of a surface of said ~~extraction electrode~~ second electrode.

10. (Currently Amended) The electron-emitting device according to Claim 1, wherein said ~~extraction electrode~~ second electrode and ~~negative electrode~~ first

electrode are formed on a surface, having a of substantially planar shape, of said substrate and a thickness of said ~~negative electrode~~ first electrode is larger than a thickness of the ~~extraction electrode~~ said second electrode.

11. (Currently Amended) The electron-emitting device according to Claim 1, wherein said electrically-insulating substrate is thicker in a region where said ~~negative electrode~~ first electrode is formed than in a region where said ~~extraction electrode~~ second electrode is formed.

12. (Currently Amended) The electron-emitting device according to Claim 1, wherein said ~~conductive~~ first layer is formed from on said ~~negative electrode~~ first electrode to inside of the gap between said ~~extraction electrode~~ second electrode and ~~negative electrode~~ said first electrode on a surface of said electrically-insulating substrate.

13. (Currently Amended) An electron source ~~wherein~~ comprising a plurality of electron-emitting devices ~~as set forth in either one of Claims 1 to 12~~ are arrayed on an electrically-insulating substrate, each electron-emitting device comprising:

(A) first and second electrodes disposed on the electrically-insulating substrate, wherein a gap is formed between said first and second electrodes;

(B) a first layer formed on said first electrode and having an oxide of Ti, an oxide of Zr, or an oxide of Nb on a surface thereof; and

(C) a fibrous carbon grown through a catalyst particle disposed on a sidewall surface of said first layer facing a side of said second electrode.

14. (Original) The electron source according to Claim 13, wherein said plurality of electron-emitting devices are electrically connected to a matrix wiring pattern.

15. (Currently Amended) An image-forming apparatus ~~wherein~~
comprising:
the electron source according to Claim 13; and
an image-forming member for forming an image by collision of emitted electrons, is disposed at a position where ~~the~~ said image-forming member faces ~~the~~ said electron source ~~as set forth in Claim 13.~~

16. (Currently Amended) An electron-emitting device comprising:
(A) a first electrode and a second electrode placed in opposition to each other, with a gap between said first and second electrodes, on a surface of a substrate; and
(B) a plurality of fibers electrically connected to said first electrode and comprising carbon ~~as a main component~~,
wherein said fibers are placed on a surface of said first electrode facing said second electrode.

17. (Currently Amended) The electron-emitting device according to Claim 16, wherein each of ~~the~~ said fibers comprising the carbon ~~as a main component~~ comprises a graphen.

18. (Currently Amended) The electron-emitting device according to Claim 16, wherein each of ~~the~~ said fibers comprising the carbon ~~as a main component~~ comprises a plurality of graphens.

19. (Currently Amended) The electron-emitting device according to Claim 18, wherein said plurality of graphens are layered in an axis direction of the at least one fiber comprising carbon ~~as a main component~~.

20. (Currently Amended) The electron-emitting device according to Claim 16, wherein electrons are emitted by applying a voltage between said second electrode and said first electrode so that a potential of said second electrode is higher than that of ~~the~~ said first electrode.

21. (Currently Amended) The electron-emitting device according to Claim 16, wherein a height from the surface of said substrate ~~surface~~ to said fibers is larger than a height from the surface of said substrate ~~surface~~ to a surface of ~~the~~ said second electrode.

22. (Original) The electron-emitting device according to Claim 16, wherein a thickness of said first electrode is larger than a thickness of said second electrode.

23. (Original) The electron-emitting device according to Claim 16,

wherein a first layer is placed between said first electrode and said fibers and said first layer comprises a Ti oxide, a Zr oxide, or an Nb oxide on a surface thereof.

24. (Currently Amended) The electron-emitting device according to Claim 23, wherein said fibers comprising carbon ~~as a main component~~ are fibers grown through a catalyst material placed on said first layer.

25. (Currently Amended) The electron-emitting device according to Claim 24, wherein said catalyst material is ~~either~~ at least one of Pd, Ni, Fe, Co, or an alloy thereof.

26. (Original) The electron-emitting device according to Claim 23, wherein said first layer is electrically conductive.

27. (Currently Amended) The electron-emitting device according to Claim 23, wherein said first layer is covered by a second layer over ~~the~~ surfaces other than a surface facing said second electrode, and said second layer consists of a material on which no substantial growth of fibers comprising carbon as a main component occurs as compared with said first layer.

28. (Currently Amended) The electron-emitting device according to Claim 23, wherein said first layer is covered by a second layer over ~~the~~ surfaces other than a surface facing said second electrode, and said second layer consists of a material selected

from Ta, Cr, Au, Ag, Pt, and materials of the ~~a~~ same kind as a catalyst material.

29. (Currently Amended) An electron source ~~wherein~~ comprising a plurality of electron-emitting devices arrayed on a substrate, each electron-emitting device comprising: ~~as set forth in either one of Claims 16 to 28 are arrayed~~

(A) a first electrode and a second electrode placed in opposition to each other, with a gap between said first and second electrodes, on a surface of the substrate; and

(B) a plurality of fibers electrically connected to said first electrode and comprising carbon,

wherein said fibers are placed on a surface of said first electrode facing said second electrode.

30. (Canceled)

31. (New) The electron source according to Claim 29, wherein each of said fibers comprising the carbon comprises a graphen.

32. (New) The electron source according to Claim 29, wherein each of said fibers comprising the carbon comprises a plurality of graphens.

33. (New) The electron source according to Claim 32, wherein said plurality of graphens are layered in an axis direction of the at least one fiber comprising

carbon.

34. (New) The electron source according to Claim 29, wherein electrons are emitted by applying a voltage between said second electrode and said first electrode so that a potential of said second electrode is higher than that of said first electrode.

35. (New) The electron source according to Claim 29, wherein a height from the surface of said substrate to said fibers is larger than a height from the surface of said substrate to a surface of said second electrode.

36. (New) The electron source according to Claim 29, wherein a thickness of said first electrode is larger than a thickness of said second electrode.

37. (New) The electron source according to Claim 29, wherein a first layer is placed between said first electrode and said fibers and said first layer comprises a Ti oxide, a Zr oxide, or an Nb oxide on a surface thereof.

38. (New) The electron source according to Claim 37, wherein said fibers comprising carbon are fibers grown through a catalyst material placed on said first layer.

39. (New) The electron source according to Claim 38, wherein said catalyst material is at least one of Pd, Ni, Fe, Co, or an alloy thereof.

40. (New) The electron source according to Claim 37, wherein said first layer is electrically conductive.

41. (New) The electron source according to Claim 37, wherein said first layer is covered by a second layer over surfaces other than a surface facing said second electrode, and said second layer consists of a material on which no substantial growth of fibers comprising carbon as a main component occurs as compared with said first layer.

42. (New) The electron source according to Claim 37, wherein said first layer is covered by a second layer over surfaces other than a surface facing said second electrode, and said second layer consists of a material selected from Ta, Cr, Au, Ag, Pt, and materials of a same kind as a catalyst material.

43. (New) An image-forming apparatus comprising:
the electron source according to any one of Claims 29 and 31-42; and
a fluorescent member.

44. (New) The electron source according to Claim 13, wherein only the sidewall surface of said first layer facing the side of said second electrode is exposed and other surfaces of said first layer are covered with a material on which a fibrous carbon does not grow as compared with said first layer.

45. (New) The electron source according to Claim 44, wherein said

material on which a fibrous carbon does not grow as compared with said first layer, is at least one of Ta, Cr, Au, Ag, Pt, and materials of a same kind as a material making said catalyst particle.

46. (New) The electron source according to Claim 13, wherein said fibrous carbon consists of a graphite nanofiber, a carbon nanotube, an amorphous carbon, or a mixture thereof.

47. (New) The electron source according to Claim 13, wherein said fibrous carbon comprises a graphen.

48. (New) The electron source according to Claim 13, wherein said fibrous carbon comprises a plurality of graphens.

49. (New) The electron source according to Claim 48, wherein said plurality of graphens are layered in an axis direction of said fibrous carbon.

50. (New) The electron source according to Claim 13, wherein said catalyst particle consists of Pd, Ni, Fe, Co, or an alloy thereof.

51. (New) The electron source according to Claim 13, wherein an electron emission position from said fibrous carbon is more distant from a surface of said electrically-insulating substrate than a position of a surface of said second electrode.

52. (New) The electron source according to Claim 13, wherein said second electrode and first electrode are formed on a surface, having a substantially planar shape, of said substrate and a thickness of said first electrode is larger than a thickness of said second electrode.

53. (New) The electron source according to Claim 13, wherein said electrically-insulating substrate is thicker in a region where said first electrode is formed than in a region where said second electrode is formed.

54. (New) The electron source according to Claim 13, wherein said first layer is formed from on said first electrode to inside of the gap between said second electrode and said first electrode on a surface of said electrically-insulating substrate.

55. (New) The electron source according to any one of Claims 44-54, wherein said plurality of electron-emitting devices are electrically connected to a matrix wiring pattern.

56. (New) An image-forming apparatus comprising:
the electron source according to Claim 55; and
an image-forming member for forming an image by collision of emitted electrons, disposed at a position where said image-forming member faces said electron source.